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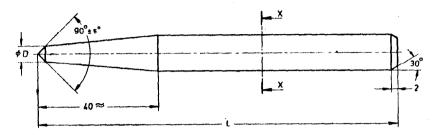


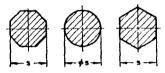
Indian Standard

SPECIFICATION FOR CENTRE PUNCHES

1. Scope — Lays down the requirements for centre punches in general use for making distinct impression on steel, brass, aluminium and wood.

2. Dimensions





SECTION XX

All dimensions in millimetres.

Nomir	nal Size	上 士5	s 土1
D	Tolerance		
4 5 8 10	士0·2 士0·2 士0·5 士0·5	120 120 150 150	10 12 14 14

3. Material — Good quality carbon or alloy tool steel meeting with the requirements laid down in 4 and 6.

Suitable Example:

T80 of IS: 3749-1966 'Specification for tool and die steels for cold work'.

- 4. Hardness The working end shall have a hardness of 545 to 655 HV [see IS:1501-1968 Method for Vickers hardness test for steel (first revision)] $\{\approx 52 \text{ to } 58 \text{ HRC} \text{ [see IS:1586-1968 Method for Rockwell hardness test (B and C scales) for steel (first revision)]}. The striking face shall have a hardness of 375 to 460 HV (<math>\approx$ 38 to 46 HRC).
- 5. Designation A centre punch of nominal size 5 mm shall be designated as follows:

Centre Punch 5, IS: 7177

6. Test — Centre punches of nominal size 4 mm shall be required to punch at least 1 000 impressions of 1 mm Min depth in a steel plate (free of scale) at least 6 mm thick and having a hardness of 345 to 392 HV (\approx 35 to 40 HRC). Punches of nominal size 5 mm and above shall be required to punch at least 1 000 impressions of 1.8 mm Min depth in a steel plate of the above thickness and hardness. On the completion of test the punches shall show no signs of chipping, mushrooming or the body being bent or the point becoming fractured or blunted.

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- 7. Packing Centre punches shall be given an anti-rust treatment. They shall be supplied in sets in suitable cases. The packing shall be in accordance with the best prevalent trade practice.
- 8. Sampling Unless otherwise agreed to between the buyer and the seller, the procedure given in IS: 2500 (Part I)-1963 'Sampling Inspection tables: Part I Inspection by attributes and by count of defects', may be followed for sampling inspection. The sampling plans for various characteristics shall be according to 8.1 and 8.2.
- 8.1 For inspection of dimensions, single sampling plan with inspection level III and acceptable quality level (AQL) of 2.5 percent [see Tables 1 and 2 of IS: 2500 (Part 1)-1963] shall be adopted.
- 8.2 For inspection of hardness and test, single sampling plan with inspection level I and acceptable quality level (AQL) of 1.0 percent [see Tables 1 and 2 of IS: 2500 (Part I)-1963] shall be adopted.
- 9. Marking Punches shall be marked with the nominal size, manufacturer's name, initials or recognized trade-mark. The container of the punches shall also be marked with the description of the contents.
- 9.1 ISI Certification Marking Details available with the Indian Standards Institution.

EXPLANATORY NOTE

While preparing this standard, assistance has been derived from the following publications:

DIN 7250-1969 'Centre punches'. Deutscher Normenausschuss

JUS K. El. 900-1957 'Obelezaci'. Jusgoslovenski Zaved Za Standardizaciju

GGG-P831e: 1966 'Punches; centre, copper, drive pin, aligning and prick '. Fedral Supply Services, USA